The Chronic Care Model

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Improving Chronic Illness Care,
a national program of the
Robert Wood Johnson Foundation
Part 1

Chronic Illness in America

- Over 100 million Americans suffer from one or more chronic illnesses and 40 million are limited by them
- Despite annual spending of nearly $1 trillion and significant advances in care, one-half or more of patients still don't receive appropriate care
- Gaps in quality care lead to more than 57,000 avoidable deaths each year
- Best practices could avoid nearly 41 million sick days and more than $11 billion in lost productivity annually
- Patients and families increasingly recognize the defects in their care

Number of Chronic Conditions Per Medicare Beneficiary

Number of Conditions	Percent of Beneficiaries		Percent of Expenditures	
0	18		1	
1	19		4	
2	21		11	
3	18		18	
4	12	63%	21	95%
5	7		18	
6	3		13	
7+	2		14	

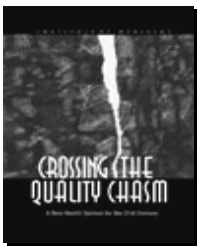
Percent Somewhat or Strongly Disagreeing With Statements

	Age 50-64	Age 65+
Government programs are adequate to meet the needs of people with chronic medical conditions	65%	47%
Health insurance pays for most of services chronically ill people need	55%	43%
People with chronic medical conditions receive adequate medical care	66%	52%

What Americans With Chronic Disease Receive

- 15-24% of hypertensives are controlled
- 42% of diabetics have controlled lipid levels
- 35% of eligible patients with atrial fibrillation receive anticoagulation
- 25% of people with depression are receiving adequate treatment
- 44% of discharged CHF patients are readmitted within 120 days

The IOM Quality report: A New Health System for the 21st Century



http://www4.nas.edu/onpi/webextra.nsf/web/chasm?OpenDocument

The IOM Quality Report: Selected Quotes

- "The current care systems **cannot** do the job."
- "Trying harder will not work."
- "Changing care systems will."

IOM Report: Six Aims for Improving Health Systems

- Safe - avoids injuries
- **Effective** - relies on scientific knowledge
- **Patient-centered** - responsive to patient needs, values and preferences
- Timely - avoids delays
- Efficient - avoids waste
- **Equitable** - quality unrelated to personal characteristics

Randomized Trials of System Change Interventions: Diabetes

Cochrane Collaborative Review and JAMA Re-review

- About 40 studies, mostly randomized trials
- Interventions classified as decision support, delivery system design, information systems or self-management support
- 19 of 20 studies which included a self-management component improved care
- All 5 studies with interventions in all four domains had positive impacts on patients

Renders et al, Diabetes Care, 2001;24:1821
Bodenheimer, Wagner, Grumbach, JAMA 2002; 288:1910

Changing Outcomes Requires Fundamental Practice Changes

Reviews of interventions in other conditions show that practice changes are similar across conditions

Integrated changes with components directed at:

- Influencing physician behavior,
- better use of non-physician team members,
- enhancements to information systems,
- planned encounters and
- modern self-management support

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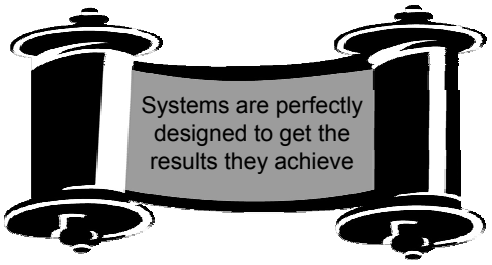
The Watchword



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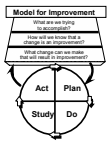
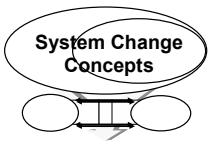
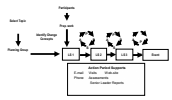
A Recipe for Improving Outcomes



System change strategy





Learning Model

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System Change Concepts
Why a Chronic Care Model?

- Emphasis on physician, not system, behavior
- Characteristics of successful interventions weren't being categorized usefully
- Commonalities across chronic conditions unappreciated

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Model Development 1993

- Initial experience at GHC
- Literature review
- RWJF Chronic Illness Meeting -- Seattle
- Review and revision by advisory committee of 40 members (32 active participants)
- Interviews with 72 nominated "best practices" -- site visits to selected group
- Model applied with diabetes, depression, asthma, CHF, CVD, arthritis, AIDs, preventive care and geriatrics

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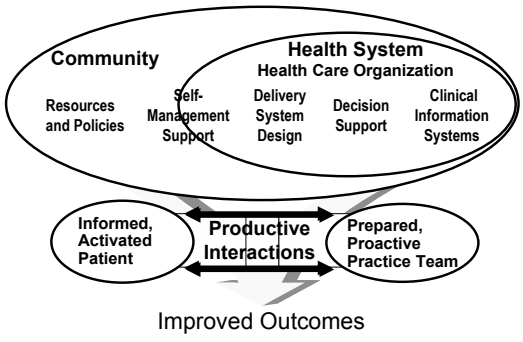
Chronic Care Model



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Essential Element of Good Chronic Illness Care

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What characterizes an "informed, activated patient?"

They have the motivation, information, skills and confidence necessary to effectively make decisions about their health and manage it

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What characterizes a "prepared" practice team?

At the time of the interaction, they have the patient information, decision support and resources necessary to deliver high quality care

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How would I recognize a productive interaction?

- Assessment of self-management skills and confidence as well as clinical status
- Tailoring of clinical management by stepped protocol
- Collaborative goal-setting and problem-solving resulting in a shared care plan
- Active, sustained follow-up

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Self-management Support

- Emphasize the patient's central role.
- Use effective self-management support strategies that include assessment, goal-setting, action planning, problem-solving and follow-up.
- Organize resources to provide support

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Delivery System Design

- Define roles and distribute tasks among team members
- Use planned interactions to support evidence-based care
- Provide clinical case management services
- Ensure regular follow-up
- Give care that patients understand and that fits their culture

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Features of Case Management

- Regularly assess disease control, adherence and self-management status
- Either adjust treatment or communicate need to primary care immediately
- Provide self-management support
- Provide more intense follow-up
- Provide navigation through the health care process

Decision Support

- Embed evidence-based guidelines into daily clinical practice
- Integrate specialist expertise and primary care
- Use proven provider education methods
- Share guidelines and information with patients

Clinical Information System

- Provide reminders for providers and patients
- Identify relevant patient subpopulations for proactive care
- Facilitate individual patient care planning
- Share information with providers and patients
- Monitor performance of team and system

Community Resources and Policies

- Encourage patients to participate in effective programs
- Form partnerships with community organizations to support or develop programs
- Advocate for policies to improve care

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Health Care Organization

- Visibly support improvement at all levels, starting with senior leaders
- Promote effective improvement strategies aimed at comprehensive system change
- Encourage open and systematic handling of problems
- Provide incentives based on quality of care
- Develop agreements for care coordination

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Meta-analysis of Interventions to Improve Chronic Illness – Tsai, Morton, Keeler

- 112 studies -- most RCTs (27 asthma, 21 CHF, 33 depression, 31 diabetes)
- Interventions that contained one or more CCM elements improved clinical outcomes (RR .75-.82) and processes of care (RR 1.30-1.61)
- No superfluous element
- Didn't study interactive effects

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Advantages of a General System Change Model

- Applicable to most preventive and chronic care issues
- Once system changes in place, accommodating new guideline or innovation much easier
- Early participants in our collaboratives using it comprehensively

- "Ultimately, the secret of quality is love. You have to love your patients, you have to love your profession, you have to love your God. If you have love, you can work backward to monitor and improve the system."
  – Donabedian

Contact us:

www.improvingchroniccare.org

thanks